

FIG. 1

Inventor(s): Ronald L. Terrel et al. Express Mail No. EV347013915US Docket No. 960068.401C1

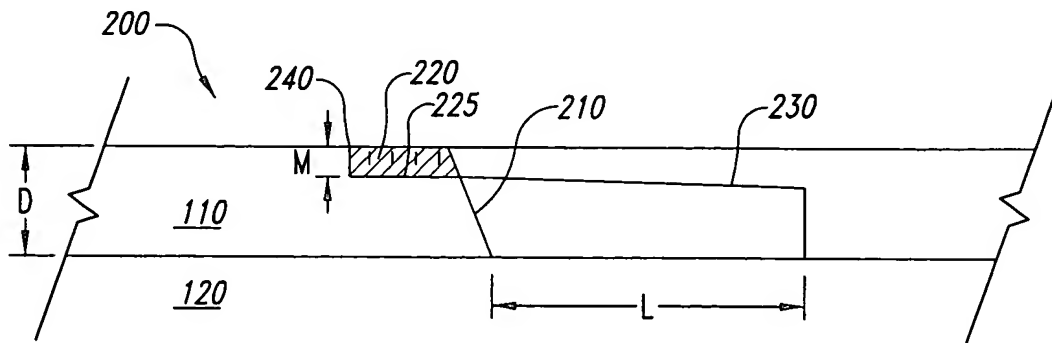


FIG. 2

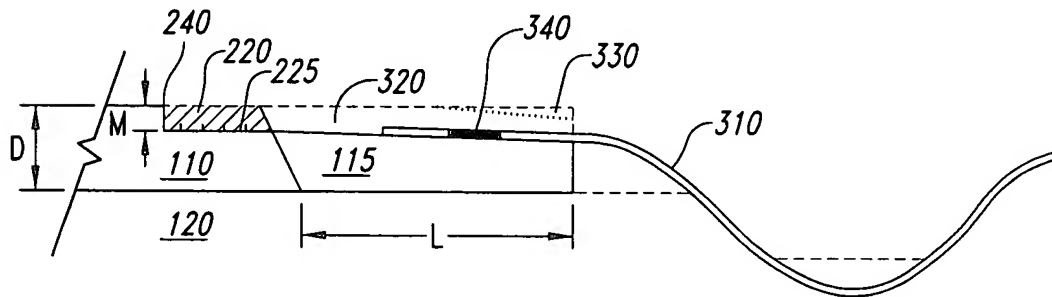


FIG. 3

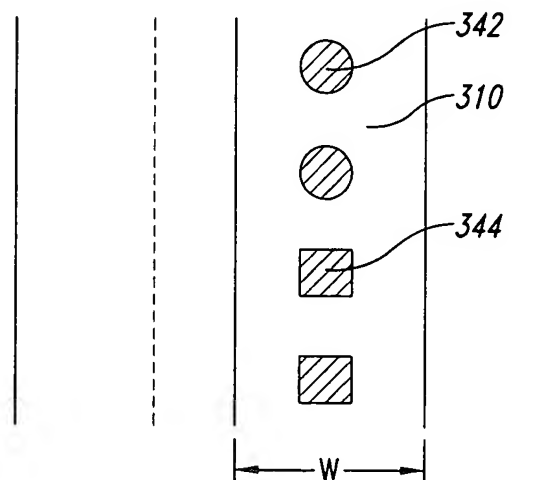


FIG. 4

EXEMPLARY BINDER PROPERTIES

ORIGINAL BINDER:	TEST METHOD	Modified Asphalt Spec.	TRADITIONAL	
FLASH POINT, °C	AASHTO T48	230 min.	308.6	
VISCOSITY, cps@135°C	ASTM D4402	3,000 max.	920	
@175°C			197	
@200°C			99	
DYNAMIC SHEAR@82°C, kPa (G*/sinδ, 10 rad./sec.)	AASHTO TP5	1.0 min.	1,412	
COMPATIBILITY (163°C/48 hrs)	ASTM D5892	DIFFERENCE 2.0 max.	172.3	
SP top 1/3	ASTM		172.8	
SP bottom 1/3				
AFTER RTFOT:				
MASS LOSS, %	AASHTO T240	1.0 max.	0.542	
DYNAMIC SHEAR@82°C, kPa (G*/sinδ, 10 rad./sec.)	AASHTO TP5	2.2 min.	2.125	
PAV RESIDUE (100°C, 300psi, 20 hrs)	AASHTO PP1	5000 max.	1,217	
DYNAMIC SHEAR@34°C, kPa (G*/sinδ, 10 rad./sec.)	AASHTO TP5		300 max.	254.0
CREEP STIFFNESS@-12°C, STIFFNESS, MPa (60 sec)	AASHTO TP1		0.300 min.	0.312
M VALUE	AASHTO TP3	-	0.853	
DIRECT TENSION, @-12°C, % STRAIN		MP 1	-	'82'-22
PERFORMANCE GRADE, PG				

FIG. 5

**BINDER PREPARATION INFORMATION:**

**FORMULA:**

Material	Percentage, %
Paramount AC-5 Asphalt	57.0
Paramount EBS Asphalt	37.0
Modifier A (ESI)	4.0
Modifier B (WAX)	0.5
Modifier C (SBS)	1.5
Total	100.0

**BLENDING PROPERTIES:**

Temperature:		365-390°F
Blending/Mixing Type		high shear followed by paddle agitation
Mix Time		2-3 hrs
Storage/Delivery Temperature		365-385°F Target: 360°F
Order of Addition:	1st	blend/mix asphalt
	2nd	Modifier
	3rd	Modifiers A & B in ratio of 3 parts Modifier B to 1 Part Modifier A per formula above

*FIG. 6*

**Aggregate Gradation:**

SIEVE SIZE, mm (No.)	DENSE-GRADED Wt % Passing	DENSE-GRADED Spec Range, % passing	OPEN-GRADED Spec Range, % passing
19.0 (3/4")	100.0	100.0	70-100
12.5 (1/2")	100.0	100.0	25-40
9.5 (3/8")	97.9	85-100	5-15
4.75 (No. 4)	69.7	60-80	0-2
2.36 (No. 8)	42.8	40-60	0-1
1.18 (No. 16)	26.4	25-40	0-1
0.600 (No. 30)	19.0	15-25	0-1
0.300 (No. 50)	14.4	11-20	0-1
0.150 (No. 100)	10.6	7-15	0-1
0.075 (No. 200)	7.5	5-10	0-1

% PASSING BASED ON TOTAL WEIGHT OF AGGREGATE

*FIG. 7*

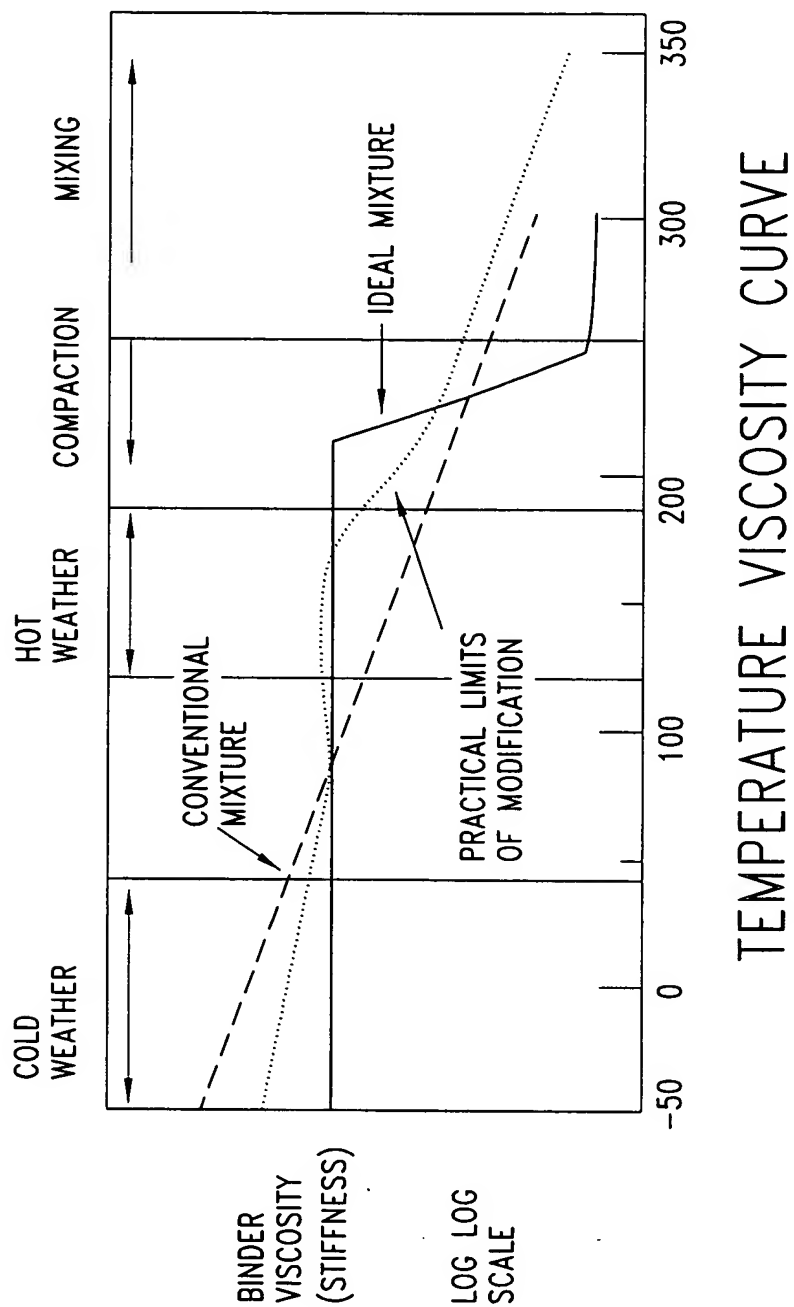


FIG. 8

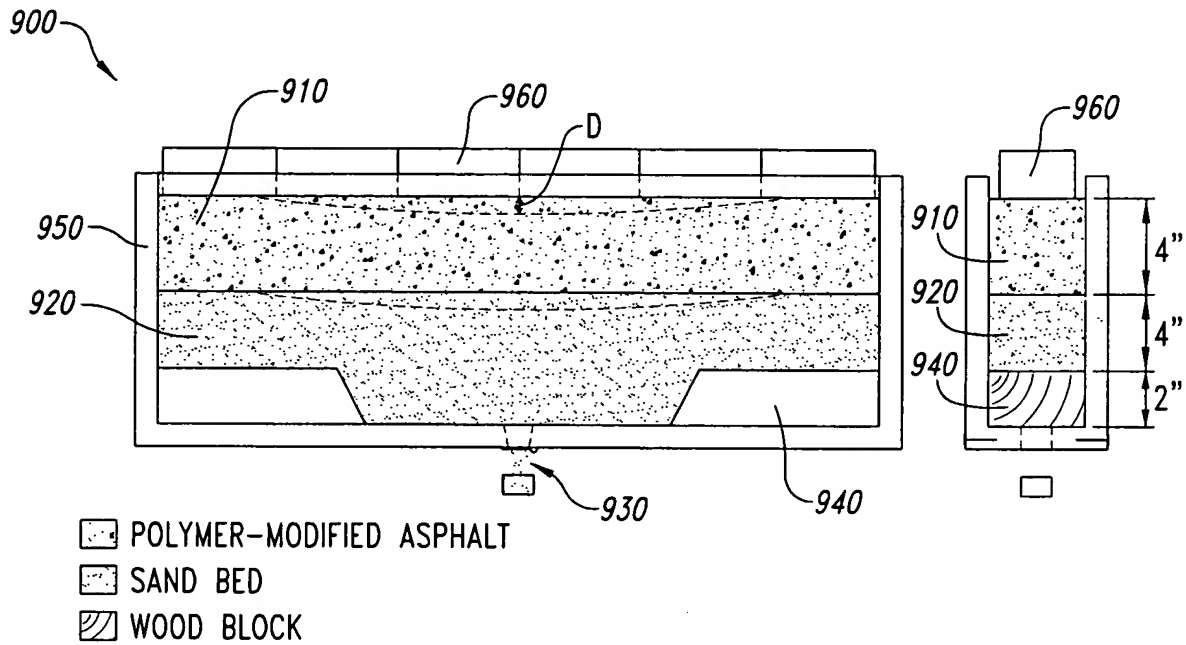


FIG. 9A

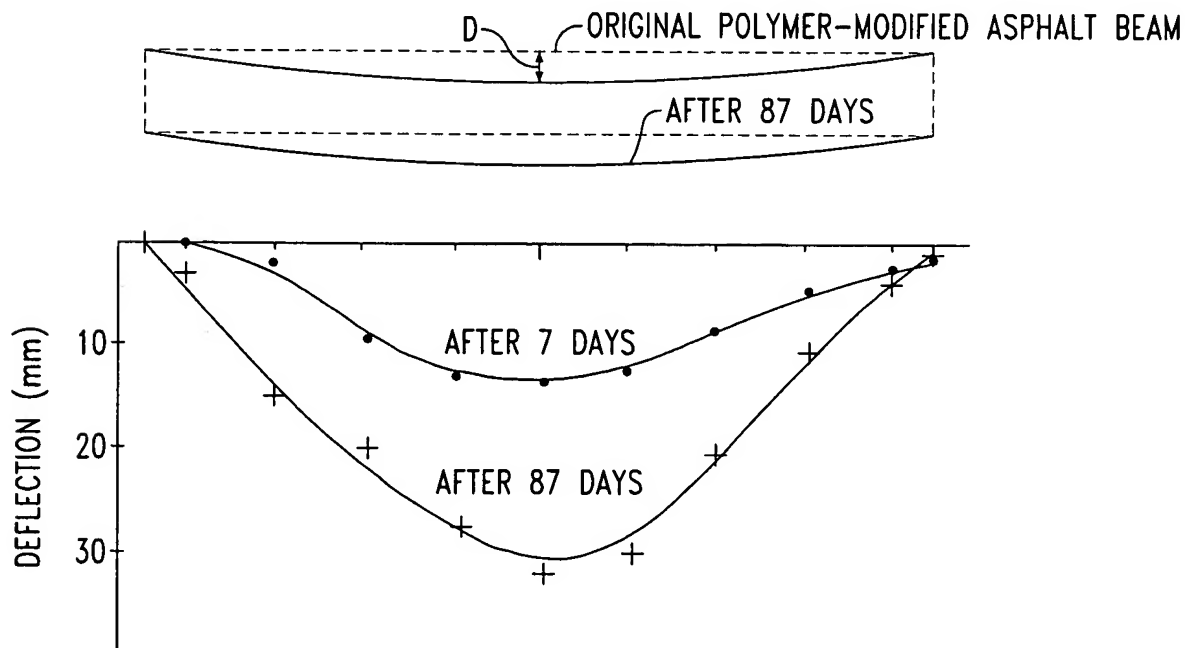


FIG. 9B

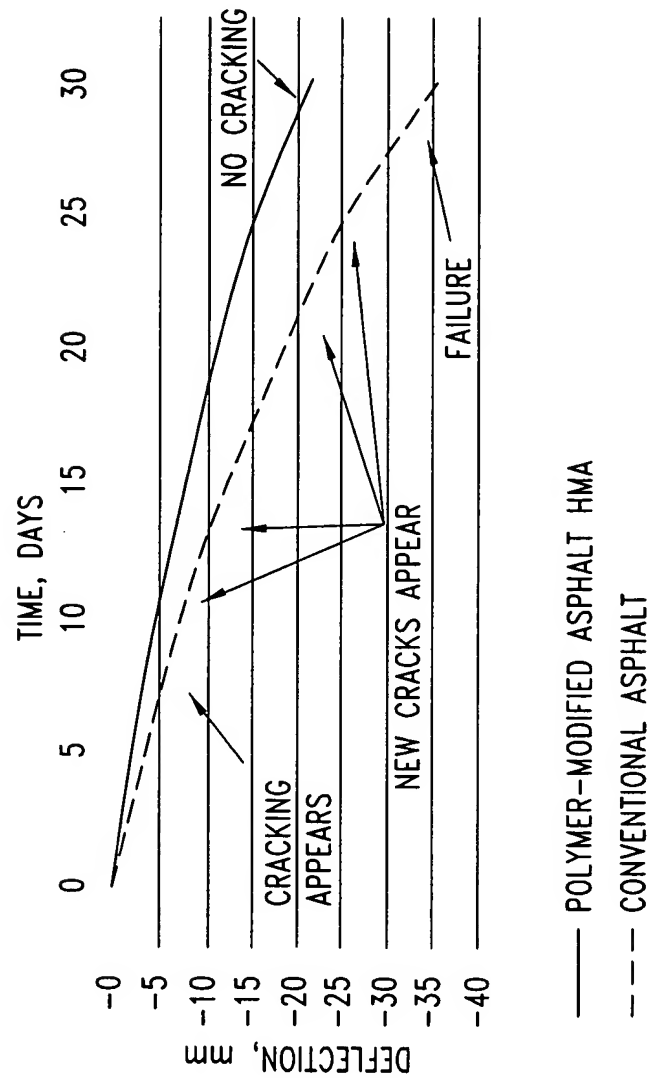
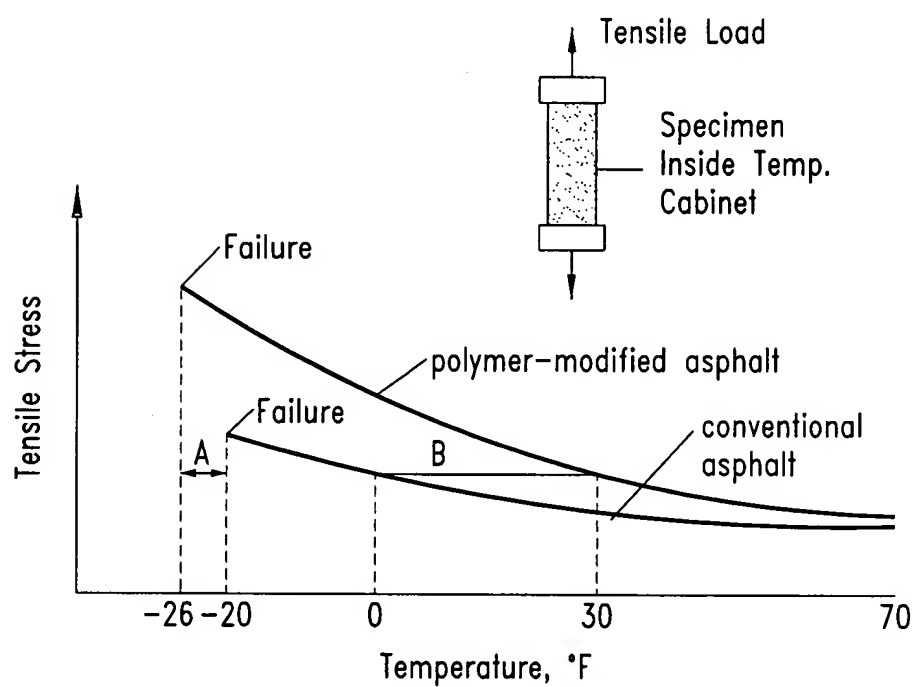


FIG. 9C





*FIG. 10*